



when reliability is critical™

Lightstick® Optical Industrial Precision Control Joysticks
L1000 Series - 1 Axis and 2 Axes Reliability Data
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Electrical

Power Consumption	12.5mA @ 5VDC (typical); 20mA (maximum)
Output Repeatability	> 2%
Center voltage:	+/- 50 mV typical, +/- 100 mV maximum
Output Impedance	1K ohms (typical)

Mechanical

MTBF	Greater than 100,000 hours
Life	5,000,000 to 10,000,000 random deflections (spring option)
Shaft diameter:	3/16" Stainless Steel
Deflection angle:	+ / - 20 degrees
Break out force:	140 grams
Full scale force:	400 grams
Shock:	30 to 50g, 11 ms, half-sine, depending on knob & spring option, per MIL-STD-202F, MIL-STD-901D
Vibration:	5-25Hz 0.1", 25-55Hz 0.03" per MIL-STD-202F, MIL-STD-167-1

Environmental

Operating Temperature	-40° to 80° C
Storage Temperature	-40° to 80° C
Sealing Rating	NEMA 4 (IP66) per IEC60529, MIL-STD-810F
Relative Humidity	100% non-condensing
EMC immunity:	200 V/m per EN610000-4-3, SAEJ1113, MIL-STD-461F
EMC emissions:	Complies with EN610000-6-3, SAEJ1113, MIL-STD-461F
ESD immunity:	+/- 8 kV direct contact, +/- 15 kV air discharge per EN610000-4-2

Certifications/Compliance

- Compliant with FCC class A and B regulations
- "CE" classification
- Restriction of Hazardous Substances Directive or RoHS Compliant (Pb free)